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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Tadashi Ono

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EXAMINER

SIKRI, ANISH

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/811,926	<b>Applicant(s)</b> ONO ET AL.	
	<b>Examiner</b> ANISH SIKRI	<b>Art Unit</b> 2443	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,5,6 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5,6 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/19/2008</u>  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

Claims 2-4 are cancelled.

Claims 7-12 are cancelled.

### ***Information Disclosure Statement***

The information disclosure statement submitted on 12/19/2008 has been considered by the Examiner and made of record in the application file.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 1, 5-6, and 13 are rejected under 103(a) as being unpatentable over Samson et al (US Pat 4,654,857), hereafter known as Samson, in view of Unger (US Pub 2003/01888007).

Consider Claim 1 Samson et al discloses the data transmission/reception apparatus for performing a data transfer by a pipeline technique (Samson, Col 18 Lines 30-53) between a predetermined number of processing means sections (Samson, Col 12 Lines 45-52), each processing section being capable of performing a data process and the predetermined number of processing sections being two or more (Samson, Col 5 Lines 10-20, Col 12 Lines 45-52), said apparatus comprising: a predetermined number of intermediary sections for interconnecting a first data processing section and a second data processing section and allowing data processed by the first data processing section to be transmitted to the second data processing section (Samson, Col 2 Lines 60-68), the first data processing section and second data processing section being adjoining data processing sections (Samson, Col 2 Lines 60-68), and said predetermined number of intermediary sections being smaller by one than the predetermined number of processing sections (Samson, Col 2 Lines 60-68), wherein the first data processing section includes transmission section for providing connection to the-said predetermined number of intermediary sections to transmit the data to the second data processing section (Samson, Col 3 Lines 53-62), and the second data processing section includes reception section for providing a connection to said predetermined number of intermediary sections to receive the data transmitted from the first data processing section (Samson, Col 4 Lines 31-47),

Samson et al does not specifically mention the use of each predetermined number of processing sections being either an active processing section or a passive processing section, and wherein said predetermined number of intermediary sections

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generate a data queue for retaining data to be transferred when said predetermined number of intermediary sections detect that both the first data processing section and the second data processing section are the active processing sections, and said predetermined number of intermediary sections do not generate the data queue when said predetermined number of intermediary detect that either the first data processing section or the second data processing section is the passive processing section.

Nonetheless, Unger disclosed the use of each predetermined number of processing sections being either an active processing section or a passive processing section (Unger, [0048] Unger disclosed on how active streams are detected). Unger disclosed on how the said predetermined number of intermediary sections generate a data queue for retaining data to be transferred (Unger, [0053], Unger disclosed that the data is stored in the cache) when said predetermined number of intermediary sections detect that both the first data processing section and the second data processing section are the active processing sections (Unger, [0048], [0053], Unger disclosed on how the stream is activated), and said predetermined number of intermediary sections do not generate the data queue when said predetermined number of intermediary detect that either the first data processing section or the second data processing section is the passive processing section (Unger, [0048], [0053], Unger disclosed that the cache is not created when the stream is not active or activated). Unger does indeed disclose on how the queuing and caching works in the system.

Both Unger and Samson provide features related to stream processing in the system. Therefore one of ordinary skill in the art would have been motivated to combine the teachings since both are within the same environment.

Therefore, it would have been obvious to a person skilled in the art at the time of the invention was made to incorporate the use of queuing data when the processing sections are active to transport data, taught by Unger in the system of Samson for the purpose of efficient stream/data process management.

Consider Claim 5, Samson-Unger does disclosed wherein the active processing section or the passive processing section (Unger, [0048], [0053], Unger disclosed on how the stream is activated);

However Samson-Unger does not explicitly disclose the reception section included in the second data processing section executes a reception request in a common mode irrespective of whether the first data processing section is the active processing section or the passive processing section.

But, Samson discloses that the processing can be carried out in sync with the two processors simultaneously (Samson, Col 4 Lines 31-47). As this will provide the data processing processors to be in active mode, and it is obvious to a person skilled in the art to see if the processors are in sync together, then they can be function in an async manner (Samson, Col 4 Lines 40-58).

Consider Claim 6, Samson-Unger disclosed that the data/transmission apparatus according to claim 1, can have predetermined number of sections which is equal to or greater than two (Samson Col 5 Lines 10-20, Col 12 Lines 45-52), and can perform identical functions (Samson Col 4 Lines 31-47). Samson et al shows on that there can greater than two sections/modules connected to the system for data processing.

Claim 13 has similar limitations as of Claim 1; therefore it is rejected under the same rational as Claim 1.

### ***Response to Arguments***

Applicant's arguments filed 1/21/2009 have been fully considered but they are not persuasive.

For Claims 1 and 13

Applicant argues for Claims 1 and 13 that the Unger fails to disclose the processing sections. Applicant states that the reference Unger does not teach the use of processing sections.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208



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USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Examiner states that the reference Unger does indeed disclose the use of processing sections. It is the combination of Samson-Unger which determines the processing sections; Samson discloses the use of two or more processing sections (Samson, Col 5 Lines 10-20, Col 12 Lines 45-52). And Unger discloses the use of active sessions which in combination with Samson makes it obvious to a person in the art to combine the features, and make the use of multiple processing sections.

In the applicant's invention the processing section consists of caches/buffers, it can be seen in paragraphs ([0012]-[0014]) of the applicant's invention publication (US Pub 20050021812). In the reference Unger, discloses the use of caches ([0053]), but Unger also discloses the processing of data occurs are the caches/buffers in [0042], where for example a cache can be partitioned into multiple buffers and it can act as staging place for data between the host and the IDE bus of the system and the cache buffers allow the system to create and maintain simultaneously active transport streams (Unger, [0042], [0048]). While the caches are maintaining active transport streams, they are acting as active processing sections within the cache/buffers. Unger provides an example on how the active section is carried out in (Unger, [0050], [0069]-[0071]). Unger disclosed that for example multiple active streams are created and the system processes the data to and from the host and the data storage devices. Unger discloses on how the system can handle multiplexing multiple streams (Unger, [0065], [0067]),

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Unger shows on how multiple streams can be recorded and other streams be played by the system simultaneously.

Secondly, the applicant argues that the Unger does not disclose the creation of data queue for retaining data to be transferred when the active sessions are detected, and data queue is not created when the session is passive. Unger discloses the use of queue as data can be processed via a round-robin schedule (Unger, [0053]). Unger discloses in Fig 6A-B discloses on how multiple streams are queued up. And for example, the streams are accessed when they are active. If the streams are not active, then for example there is no need to load the stream in the memory (Unger, [0053]). Further example can be seen in (Unger, [0054]) where it shows the host can be tri-states and bi-directional lines indicating multiple streams, and in Unger [0054] "if the device asserts a stream ID for the selected active stream. In step 252, the host receives the stream ID and determines if it is ready for the designated stream. If the host is not ready for the identified stream, step 254 is entered where the host removes the transfer request acknowledgement, and the process 210 returns to step 222". Further example and support can be seen in (Unger, [0055]). The applicant claims 1 and 13 state "said predetermined number of intermediary sections do not generate the data queue when said predetermined number of intermediary sections detect that either the first data processing section or the second processing section is the passive processing section". The applicant clearly discloses that it is an "or" condition, and in Unger, queues do not have created if the stream is not active. For example if there is one stream, the queue can be created only for that stream and once the queue is

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processed, the queue is non-existent, as in that particular queue there was only one stream. Multiple streams arriving at the simultaneously can create queues, as stated in Unger.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANISH SIKRI whose telephone number is 571-270-1783. The examiner can normally be reached on 8am - 5pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger can be reached on 571-272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Anish Sikri  
a.s.

April 7, 2009

/Tonia LM Dollinger/  
Supervisory Patent Examiner, Art Unit 2443